The Office has erred in determining the amendments raise issues of new matter. Indeed, it is well-settled that information contained in any one of the specification, claims or drawings of an application as filed may be added to any other part of the application without introducing new matter. See, e.g., M.P.E.P. 2163.06. The specification as filed clearly teaches that the invention is directed to methods of inducing immune responses in a mammal. (See, e.g., page 8, lines 35-37 stating "[t]he methods which are described in greater detail below provide an effective means of inducing potent class I-restricted protective and therapeutic CTL responses, as well as humoral responses" and page 12, line 11 stating the methods may be used to "generate an immune response within a warm-blooded animal."). Further, contrary to the Office's assertion that generation of an immune response refers to antibody production only, the specification is clear that an immune response encompasses both cell-mediated responses and/or humoral responses. (See, also, page 6, line 30). Thus, the amendments to the claims are fully supported by the specification as filed and do not constitute new matter.

In addition, as noted above, it is axiomatic that if original claims constitute constitutes a clear disclosure of this subject matter, then the claim should be treated on its merit. See, also, M.P.E.P. 608.01(l). In the pending case, the last line of original claim 1 recited "such that an immune response is generated." Thus, original claim 1 constitutes a clear disclosure of the subject matter of the pending claims.

In sum, Applicants submit that the amendments to claim 1 did not constitute the addition of new matter and, accordingly, that the pending claims are more than sufficiently described by the specification. In view of the foregoing amendments and following remarks, reconsideration of the claims is respectfully requested.

35 U.S.C. § 112, First Paragraph

Claims 1-5, 12-13, and 24-25 were rejected under 35 U.S.C. § 112, first paragraph as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In support of the rejection, the Examiner maintained that, because the claim amendments were not entered, the arguments previously presented were moot and that all the issues regarding "therapy" remained relevant. (Advisory Action).

For the reasons noted above, the amendments do not constitute new matter and are fully supported by the specification as filed. Accordingly, Applicants submit for the reasons made of

record in the parent case and reiterated briefly herein, that the enablement rejections are improper and should be withdrawn.

The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation. Ex parte Forman, 230 USPQ 546 (BPAI 1986). Whenever the PTO makes a rejection for failure to teach how to make and/or use the invention, the PTO must explain its reasons for the rejection and support the rejection with (i) acceptable evidence, or (ii) reasoning which contradicts the Applicants' claim: the reasoning must be supported by current literature as a whole and the PTO must prove the disclosure requires undue experimentation. In re Marzocchi, 439 F.2d 220, 223-24, 169 USPQ 367, 369-70 (CCPA 1971). For the reasons detailed below, the Office has failed to establish a prima facie case of non-enablement.

In the pending case, the claims -- drawn to methods of generating an immunological response to intracellular pathogens -- are fully enabled throughout their scope. The specification indicates that the claimed methods provide "an effective means of inducing potent class I-restricted protective and therapeutic CTL responses, as well as humoral responses." (See, e.g., page 8, lines 36-37). As is well-known, an immunological response can be either a humoral immune response (e.g., mediated by antibodies) or a cellular immune response (e.g., mediated by T-lymphocytes and/or other white blood cells). Therefore, when properly interpreted in light of the specification, the pending claims are directed to methods of eliciting cellular and humoral immune responses and the enablement requirement is satisfied by Applicants' showing that these methods elicit both humoral and cellular immune responses. (See, Examples).

There can be no dispute that Applicants have enabled methods of eliciting cellular and humoral immunological responses to intracellular pathogens. (See, Examples). Applicants direct the Examiner's attention to Examples 1-3, where the preparation of polynucleotides encoding antigens (e.g., from the core region) of a viral polyprotein are described. Administration is described, for example, on page 25, line 36 to page 26, line 29 as well as in Examples 11 and 14. The specification describes how to assess the immunological and/or therapeutic effects, for example by biochemical or cytotoxicity analyses. (See, e.g., Examples 12, 13, 15 and 16). Similarly, with respect to determining appropriate DNA sequences encoding antigens from intracellular pathogens, one skilled in the art could readily determine, in view of the teachings of Applicants' specification of how to select and use suitable nucleotide sequences.

The entire genome of many intracellular pathogens has been sequenced. (see, e.g., page 10 and citations therein). Although certainly not required to establish enablement, multiple working examples regarding selection of sequences, promoters, dosages and routes of administration are also provided in the specification. It is axiomatic that an applicant does not need to specify the dosage or method of use if it is known to one of skill in the art that such information could be readily obtained. See, e.g., USPTO Training Materials on Enablement, page 20.

In sum, it would not require undue experimentation to practice the claimed invention, given the guidance found in the specification and state of the art. The claimed invention is, therefore, fully enabled by the specification and Applicants respectfully request the rejections under 35 U.S.C. § 112, first paragraph be withdrawn.

Information Disclosure Statement

Applicants wish to bring to the attention of the Patent Office the references listed on the attached forms PTO-1449 and request that they be considered by the Examiner. Each of the references cited on the attached was previously cited by or submitted to the PTO in the parent application. This information disclosure statement is being submitted under 37 C.F.R. §1.97(b)(3), therefore, no fee is due.

Applicants would like to request the Examiner to initial and return copies of the forms PTO-1449, filed in the prior application on March 1, 2000, and April 10, 2002. Enclosed are copies of these forms for the Examiner's convenience.

III. CONCLUSION

In view of the foregoing amendments, Applicants submit that the claims are now in condition for allowance and request early notification to that effect.

Respectfully submitted,

Date: 10 Oct 02

By: Dpasternak

Dahna S. Pasternak
Registration No. 41,411

CHIRON CORPORATION
Intellectual Property - R440
P. O. Box 8097
Emeryville, CA 94662-8097
Tel.: (510) 655-8730
Fax: (510) 655-3542

VERSION WITH MARKINGS TO SHOW CHANGES MADE

1. (Three Times Amended) A method for [treating] generating an immune response against one or more intracellular [infections] pathogens within warm-blooded animals, comprising:

(a) administering to a warm-blooded animal a gene delivery vehicle comprising a polynucleotide encoding at least one immunogenic portion of an antigen [derived] obtained from an intracellular pathogen; and

(b) administering to said warm-blooded animal [a] at least one protein which comprises at least one of said immunogenic portion of said antigen, such that an immune response again the intracellular pathogen is generated.

5. (Three Times Amended) The method according to claim 3, wherein said viral antigen is obtained from a virus selected from the group consisting of hepatitis, feline immunodeficiency virus (FIV), and human immunodeficiency virus (HIV) [HIV].

25. (New) The composition of claim [1] 14, wherein the gene delivery vehicle comprises naked DNA.

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PENDING CLAIMS

1. (Three Times Amended) A method for generating an immune response against one or more intracellular pathogens within warm-blooded animals, comprising:

(a) administering to a warm-blooded animal a gene delivery vehicle comprising a polynucleotide encoding at least one immunogenic portion of an antigen obtained from an intracellular pathogen; and

(b) administering to said warm-blooded animal at least one protein which comprises at least one of said immunogenic portion of said antigen, such that an immune response against the intracellular pathogen is generated.

2. The method according to claim 1, further comprising the step of administering an immunomodulatory cofactor.

3. (Amended) The method according to claim 1, wherein said protein is administered prior to administration of said gene delivery vehicle.

4. The method according to claim 1, wherein said intracellular pathogen is virus and said antigen a viral antigen.

5. (Three Times Amended) The method according to claim 4, wherein said viral antigen is obtained from a virus selected from the group consisting of hepatitis, feline immunodeficiency virus (FIV), and human immunodeficiency virus (HIV).

6. The method according to claim 5, wherein said antigen is a hepatitis B antigen.

7. The method according to claim 6, wherein said hepatitis B antigen is selected from the group consisting of HBeAg, HBcAg and HbsAg.

8. The method according to claim 5 wherein said antigen is a hepatitis C antigen.

9. The method according to claim 8 wherein said hepatitis C antigen is selected from the group consisting of core antigen C, E 1, E2/NS1, NS2, NS3, NS4 and NS5.

10. The method according to claim 1, wherein said intracellular pathogen is a parasite.

11. (Amended) The method according to claim 1, wherein said gene delivery vehicle is a recombinant retrovirus.

12. (Amended) The method according to claim 1, wherein said gene delivery vehicle is selected from the group consisting of alphaviruses, adeno-associated virus and parvovirus.

13. (Amended) The method according to claim 1, wherein said gene delivery vehicle is a nucleic acid expression vector, or a eukaryotic layered vector initiation system.

14. (Amended) A composition comprising a gene delivery vehicle comprising a polynucleotide encoding at least one immunogenic portion of an antigen derived from an intracellular pathogen, a protein which comprises said immunogenic portion of said antigen, and a pharmaceutically acceptable carrier or diluent.

15. The composition according to claim 14, further comprising an imunomodulatory cofactor.

16. The composition according to claim 14, wherein said intracellular pathogen is a virus, and said antigen a viral antigen.

17. (Amended) The composition according to claim 16, wherein said viral antigen is obtained from a virus selected from the group consisting of hepatitis, feline immunodeficiency virus (FIV), and human immunodeficiency virus (HIV).

18. The composition according to claim 16, wherein said antigen is a hepatitis B antigen.

19. The composition according to claim 18, wherein said hepatitis B antigen is selected from the group consisting of HBeAg, HBcAg and HbsAg.

20. The composition according to claim 16, wherein said antigen is a hepatitis C antigen.

21. (Amended) The composition according to claim 20, wherein said hepatitis C antigen is selected from the group consisting of core antigen C, El, E2/NS1, NS2, NS3, NS4 and NS5.

22. The composition according to claim 14, wherein said intracellular pathogen is a parasite.

23. (Amended) The composition according to claim 1, wherein said gene delivery vehicle is a recombinant retrovirus.

24. The method of claim 1, wherein the gene delivery vehicle comprises naked DNA.

25. (Twice Amended) The method of claim 14, wherein the gene delivery vehicle comprises naked DNA.